

19U614

(Pages: 2)

Name:

Reg.No:

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2022

(CBCSS - UG)

CC19U CHE6 B12 - ADVANCED AND APPLIED CHEMISTRY

(Chemistry - Core Course)

(2019 Admission - Regular)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 3

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. How is the gold number of a protective colloid related to its protective action?
2. What is meant by surface to volume ratio? Comment on the surface to volume ratio value of nanomaterials.
3. What is meant by a green synthesis?
4. What are the two phases in combinatorial chemistry approach?
5. What are the applications of Teflon?
6. What are the applications of Bakelite?
7. What is superphosphate of lime?
8. Name one of the main industry which produce liquid chlorine in Kerala and give the main uses of chlorine.
9. What are surfactants?
10. Give two advantages of soap over detergents.
11. Name an adulterant used in chillipowder. How is it identified?
12. What are the constituents of chocolate?

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer *all* questions. Each question carries 5 marks.

13. Explain the catalytic properties of nanomaterials and their size dependence.
14. Write a short note on significance of combinatorial synthesis.
15. Explain commercial classification of nanomaterials
16. Write notes on (a) Elastomers (b) Fibres.
17. Write a short note on the different types of glasses.
18. What is LPG? What are its ingredients? Mention its important uses.
19. Discuss the Witt's theory of colour and constitution.

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

20. Illustratively distinguish between multimolecular, macromolecular and associated colloids.
21. Explain with suitable examples the green synthesis under microwave irradiation and ultrasonication.

(1 × 10 = 10 Marks)
